Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Improving Public Safety Communications in the 800 MHz Band	)	
	)	
	)	WT Docket No. 02-55
Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels	)	
	)	
	)	

To: The Commission

REPLY COMMENTS OF

New York State Office for Technology
Statewide Wireless Network
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Contents

I. SUMMARY

1. These reply comments from the Statewide Wireless Network, under the New York State Office for Technology, continue to represent the position of the State with regards to FCC WT Docket No. 02-55. This Notice of Proposed Rulemaking (NPRM) is an effort by the Commission to address the need to improve and enhance public safety communications in the 800-MHz band, mitigate interference, and free additional public safety spectrum. We again applaud the Commission for addressing these issues and for recognizing that public safety has immediate and critical spectrum needs.

2. Within these reply comments, the State of New York will primarily address alternative proposals for mitigating 800 MHz interference and for freeing additional spectrum for public safety. The State has provided detailed comment on the other issues raised within this NPRM, and notes that further comment is inappropriate at this time due to the wide range of solutions proposed during the comment process. In particular, the State will:

- Elaborate on the possibility of moving Nextel (and those employing a similar architecture) completely out of the 800 MHz interlaced spectrum and into equitably established spectrum, either within the upper 700 MHz commercial allocations or in the vicinity of 2 GHz. It will be shown that this approach provides a nearly optimal solution to most of the major issues addressed within this NPRM.
- Further comment on the original Nextel proposal, and note again that, except for relocation costs and some border issues, this plan also meets most of this NPRM's objectives.

- Examine the possibility of moving all of Public Safety to 700 MHz, and discuss the conditional requirements that would be necessary in order for such a mass relocation to be undertaken.
- Note that the issue of interference will return if the interlacing of noise and interference-limited designs continues within the band.

3. The State will also recommend that critical infrastructure be placed into a new service category and be allocated channels in close proximity to the final location for Public Safety channel allocations.

4. The State stresses that, under no circumstances, should the FCC take action that would delay the implementation of the SWN, as it will be a critical component for homeland defense. Furthermore, the costs of mandated future Public Safety spectrum transitions affecting State and Local governmental systems should not become a fiscal burden upon those agencies.

II. INTRODUCTION

5. The New York State Office for Technology, on behalf of the State of New York, is in the process of procuring a new Statewide Wireless Network (SWN) for state, federal and local governmental entities that operate within New York State's geographic borders. SWN will provide an integrated, land-mobile radio communications network that will be utilized by public safety and public service agencies in New York State. It will provide a digital, trunked architecture that will offer both voice and data capabilities. It will be used in day-to-day operations, as well as for disaster and emergency situations to more effectively and efficiently coordinate the deployment of all levels of government resources to such incidents. It will also

enhance international coordination along the US/Canadian border, and will play a critical role in supporting homeland defense efforts within and immediately surrounding the State of New York.

6. Because it is a wireless network, the effectiveness of SWN, in terms of providing advanced functionality and promoting interoperability, directly depends upon the amount of spectrum resources available with which to build the network. At the present time, the only viable spectrum for construction of this network is at 800 MHz. The 700 MHz public safety allocation, while a critical resource, is not available in all locations where it is currently needed. This is due to the quantity of analog television (TV) broadcast stations currently operating within this allocation, with no date certain set for when such operations will cease. Furthermore, as a result of the Canadian Digital Television (DTV) Transition Allotment Plan, which is incorporated in the FCC's recently negotiated agreement with Canada, areas of the state in the vicinity of the US/Canadian border may not have 700 MHz available.

III. PROPOSALS FOR RELOCATION OF THE 800 MHZ SERVICES

7. The State of New York will address alternative proposals for mitigating 800 MHz interference and freeing additional spectrum for public safety. These alternatives will include the possibility of moving Nextel (and those employing a similar architecture) completely out of the 800-MHz interlaced spectrum and into equitably established spectrum, the original Nextel proposal, and the possibility of moving all of Public Safety to the 700 MHz band.

A. Relocate ESMRs Out of the 800 MHz Band

8. In order to solve the interference problems, several commentors suggested approaches that relocate those digital enhanced SMRs (ESMRs) that use interference limited system designs out of the 800 MHz band.

9. The State of Maryland and E.F Johnson both suggested that, by moving these ESMR services to the upper 700 MHz commercial bands, the interference issue could be solved, and additional spectrum at 800 MHz could be allotted to Public Safety. This would also not cause any undue financial burden upon services that are not causing the interference (i.e., Public Safety, conventional analog SMRs, and B-I/LT), as there would be neither the need to move nor retune[1]. As noted by Maryland[2], this would meet the goals of the balanced-budget act, and would free up to an additional 14 MHz of spectrum for Public Safety use. This would, however, require Congressional authorization, because the resources supporting the relocation of the ESMRs under this proposal would come from auction spectrum.

10. IAFC/IMSA suggest[3] that public safety "swap" its 24 MHz of 700 MHz spectrum for the 19 MHz of 800 MHz Spectrum that Nextel allegedly holds. This would mitigate the need for Congress to intervene, since the public safety allocation is not auctionable spectrum. In addition to this, the IAFC/IMSA plan would result in a net loss of about 5 MHz of Public Safety spectrum — which is completely unacceptable.

11. The State of New York finds merit in the solution proposed both by Maryland and E.F. Johnson, because it seems to meet the primary objectives of the NPRM. First, the relocation of the ESMRs would remove the cause of the interference to Public Safety within the 800 MHz band. Second, no user base that is not causing interference would need to be relocated; therefore no undue financial burden would be placed upon Public Safety, conventional analog SMRs, or the B-I/LT pools[4]. Finally, additional spectrum would be freed for Public Safety use.

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[1] Except in cases where continued interference to Public Safety exists within the interleaved band.
[2] See *"The Maryland Plan"*, paragraph 5.
[3] See Section III-A, 4. of IAFC/IMSA comments.
[4] As long as they do not cause interference to Public Safety operations.

12. The State understands that the loss of any of the 700 MHz auctionable spectrum might not be acceptable to Congress. If this becomes an issue, the Commission should examine whether Nextel and the other ESMRs would be interested in relocating to the vicinity of 2 GHz[5], an allocation in which Nextel certainly seems interested, as evidenced in its original Proposal[6]. This "green space[7]" would allow the ESMRs to build a parallel network within the newly allocated spectrum, providing for a smooth transition. Once the 800 MHz ESMR spectrum is vacated, it would become available to Public Safety. This approach, which the State recommends, provides a nearly optimal solution to most of the major issues addressed in this NPRM — as long as there are: 1) a firm date set for the ESMR services to transition out of the 800 MHz band, 2) a firm date for 700 MHz spectrum availability, and 3) a harmonization of the 700-MHz spectrum in the border areas, so that access can be guaranteed throughout the U.S.

B. The Nextel Plan Revisited

13. The State feels it necessary to further comment on the original Nextel proposal, and to note again that, except for relocation costs and some border issues, this plan also meets most of this NPRM's objectives.

14. We again note that this proposal provides spectrum relief for Public Safety in congested areas. It would place all of the 700 and 800 MHz Public Safety allocations in adjacent allocations, simplifying dual-band equipment designs. Most importantly, the new public safety spectrum would not be dependent on analog and digital television constraints. Therefore, it could be made available sooner than the 700 MHz public safety allocation.

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[5] As noted in FCC 02-81 Section 7 *Replacement Spectrum.*
[6] See Section VII of the original Nextel Whitepaper, November 21, 2001.
[7] Either at 700 MHz or in the vicinity of 2 GHz.

15. Although this plan is desirable, it is not without shortcomings. Under the Nextel Proposal, there would be little or no spectrum relief in the Canadian border regions — regions that also may not receive full use of the 700 MHz allocation[8]. Furthermore, in order for a Nextel-like plan to proceed, a funding mechanism to compensate all relocated parties must be identified.

16. With regards to retuning and relocation of services, if the recommendations in subsection-III. A. do not constitute an acceptable solution to these issues, the 800 MHz band will need to be de-interlaced. At a minimum, most services will then need to retune. As a result, the cost and inconvenience that garner opposition to the Nextel Proposal by most parties will even exist outside of the Nextel proposal, albeit without $500 million dollars from Nextel to offset transition costs. Therefore, there will be a need for funding, likely federal funding, in order to completely solve these interference issues. One source for this funding may be the 700 MHz commercial spectrum auctions. The use of these funds is consistent with the solution that relocates the ESMRs to the upper 700 MHz commercial spectrum as discussed in subsection-III. A, except that instead of losing much of the spectrum that could be auctioned; the U.S. Treasury would lose a portion of the proceeds. Practically speaking, the end result is the same.

C. Moving All of Public Safety to 700 MHz

17. Many[9] comments suggested that all 800 MHz public safety operations be moved to either all, or a portion of, the commercial upper 700 MHz allocations. New York has examined the

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[8] See the comments of New York State Office for Technology — in particular Sections 3.2 and 4.1, as well as Appendices A through G.

[9] Bergen County Police Department (without incurring loss of 800 MHz), Madison County East Transit District, Aeronautical Radio Inc, Private Wireless Coalition, Association of American Railroads, Boeing Corporation, Lockheed Martin Corporation, NAM/MFRAC, Fischer Wireless Services Inc, Cellular Telecommunications Industry Association - CTIA, Motient Communications Inc, Kenwood Communications Corporation, RCC Consultants, Business Autophones Inc, RadioSoft (as a

possibility of moving all of Public Safety to the 700 MHz band, and notes that, while this is desirable in terms of increasing the total Public Safety spectrum allocations, there are definite ancillary requirements that would need to be met in order for such a mass exodus to be undertaken.

18. New York sees this as a possible long-term solution to the 800 MHz interference problems, and supports it as such. It would provide the most public safety spectrum out of all the proposed plans, and would consolidate much of Public Safety's operations into one band. However, the success of this plan, as well as New York's support, would be conditional upon both 700 MHz band harmonization in the international border regions, and domestic 700 MHz band clearing. Both of these are policy issues that remain to be adequately addressed.

19. Appendices 1 through 3 to these comments illustrate the difficulties that public safety would have in employing systems at 700 MHz, even given both the public safety and upper commercial allocations (TV channels 60 though 69). It is clear that, without harmonization of the US and Canadian mobile allocations in TV channels 60 through 69, there are areas where no 700 MHz Public Safety systems could deployed in the U.S. — even given the flexibility afforded by augmenting the Public Safety allocation with the entire upper 700 MHz commercial allocation.

D. Other Measures

20. New York has provided detailed comment on the additional measures necessary to combat interference. The State stresses again that simply de-interlacing the noise- and

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long-term solution), Electronic Specialties Inc, Computer Car Inc, California State Automobile Association, Automobile Club of Southern California, US Unwires Inc, Copper Valley Wireless Inc, Radio Communications Systems Inc (RCS), 3M Company, CC Communications, Southern Illinois RSA Partnership, Jamestown Communications and Midwest Management, Blooston, Mordkofsky, Dickens, Duffy, & Pendergrast (a possibility), Fresno Mobile Radio Inc, Southern LINC, AT&T Wireless Inc., and Alltel Communications Inc, and Cingular Wireless LLC.

interference-limited services once will not solve the problem. The Commission must develop and adopt rules that segregate these designs, and will, therefore, need to define the characteristics that differentiate these designs, and maintain sufficient separation between them. It is important to note that these designs are not, and will not, be strictly service dependent. If rules such as these are not implemented, future interference to Public Safety may come from Public Safety operations themselves. New York will comment further on this as the docket evolves.

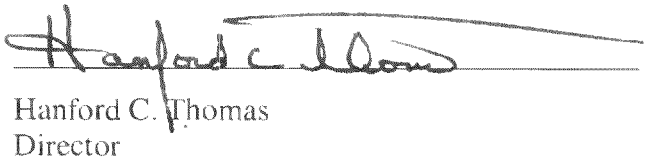
IV. CRITICAL INFRASTRUCTURE SERVICES

21. Because of the operations and role of the Critical Infrastructure providers, the State recommends that Critical Infrastructure be provided its own service category and be allocated spectrum in close proximity to the final location for Public Service spectrum. This will enhance interoperability in situations where Critical Infrastructure and Public Safety often work side by side during crisis and disaster events.

V. TRANSITION COSTS AND TIMELINE

22. The State notes that it is premature to elaborate on the costs or timeline of the de-interlacing and/or relocations necessary to mitigate the interference within the 800 MHz band, since no clear plan had yet been proposed that meets the needs of all parties. However, the State stresses that under no circumstances should the FCC take action that would delay the implementation of the SWN, as it will serve as a critical component for homeland defense. Furthermore, the costs of mandated future Public Safety spectrum transitions affecting State and Local governmental systems should not become a fiscal burden upon those agencies.

Respectfully Submitted,



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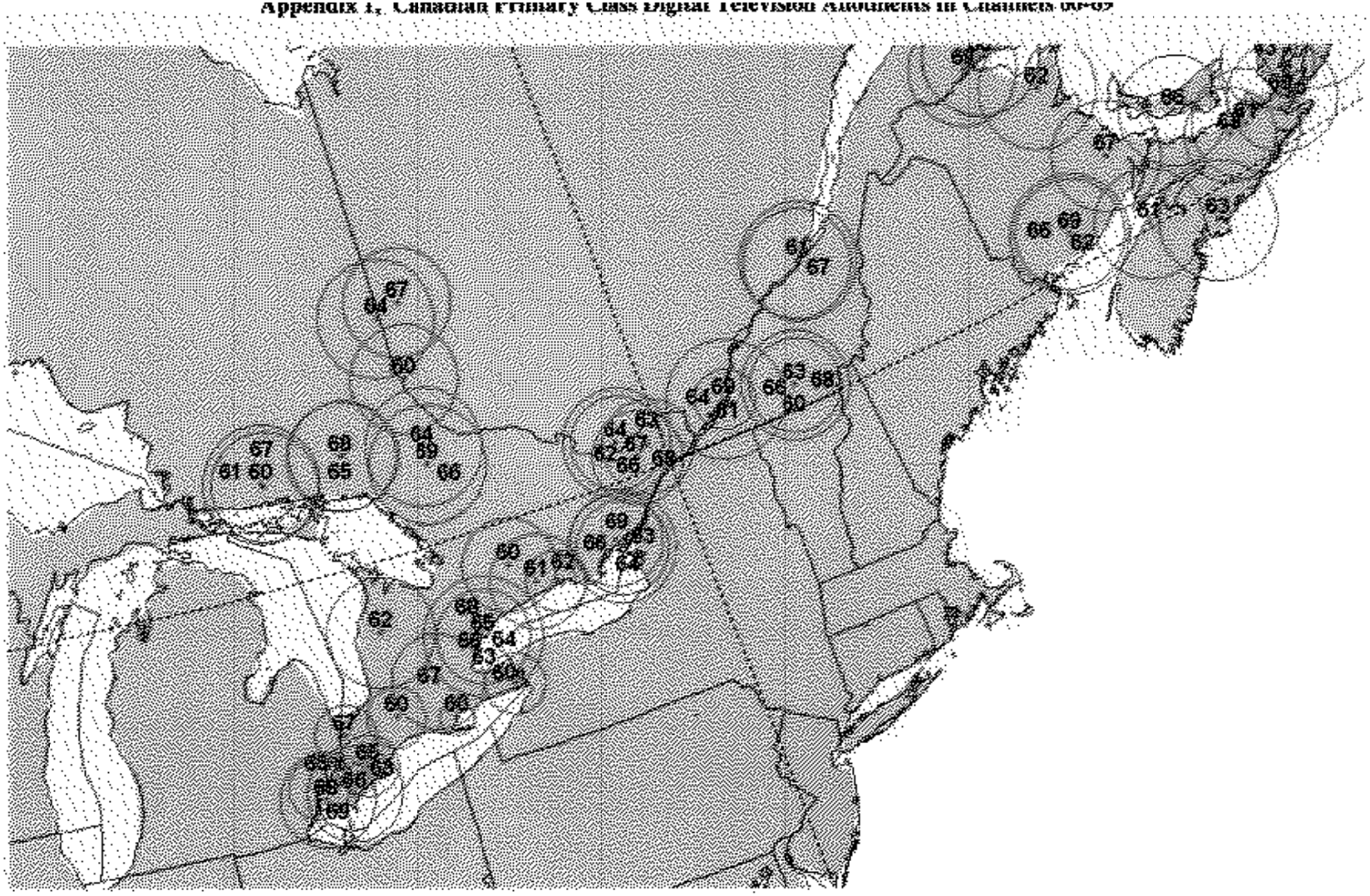
Appendix 1, Canadian Primary Class Digital Television Allotments in Channels 60-69



Appendix 2, Incumbent Primary Class Analog Television in Channels 60-69